

COMPUTER SCIENCE AND ENTREPRENEURSHIP

Marks :75	PART-I (CLASS-XI)	Time: 2:30 Hours
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Theory: 75 + Practical: 25 Total: 100

Topics

Unit 1: Introduction to Software Development

- 1.1 Software Development
- 1.2 Introduction to Software Development Life Cycle (SDLC)
- 1.3 Software Development Methodologies
- 1.4 Project Planning and Management
- 1.5 Graphical Representation of Software Systems
- 1.6 Introduction to Design Patterns
- 1.7 Software Debugging and Testing
- 1.8 Software Development Tools

Unit 2: Python Programming

- 2.1 Introduction to Python Programming
- 2.2 Basic Python Syntax and Structure
- 2.3 Operators and Expressions
- 2.4 Control Structures
- 2.5 Python Modules and Built-in Data Structures
- 2.6 Built-in Data Structures
- 2.7 Modular Programming in Python
- 2.8 Object-Oriented Programming in Python
- 2.9 Advanced Python Concepts
- 2.10 Testing and Debugging in Python

Unit 3: Algorithms and Problem Solving

- 3.1 Understanding Computational Problems
- 3.2 Algorithms for Problem Solving
- 3.3 Problem Solvability and Complexity
- 3.4 Algorithm Analysis
- 3.5 Algorithm Design Techniques
- 3.6 Commonly Used Algorithms

Unit 4: Computational Structures

- 4.1 Primitive Computational Structures

Unit 5: Data Analytics

- 5.1 Basic Statistical Concepts
- 5.2 Data Collection and Preparation
- 5.3 Building Statistical Models
- 5.4 Introduction to Data Visualization
- 5.5 Tools for Data Visualization

Unit 6: Emerging Technologies

- 6.1 Definition and Overview of Emerging Technologies
- 6.2 Cloud Computing
- 6.3 Applications and Implications of Cloud Computing
- 6.4 Introduction to Blockchain Technology
- 6.5 Applications and Implications of Blockchain
- 6.6 Future Trends and Innovations

Unit 7: Legal and Ethical Aspects of Computing System

- 7.1 Understanding Terms of Use
- 7.2 Privacy and Security Threats
- 7.3 The Digital Divide and Its Impacts
- 7.4 Computing's Impact on Individuals and Society
- 7.5 Digital Citizenship and Ethical Considerations

Unit 8: Online Research and Digital Literacy

- 8.1 Online Research and Digital Literacy
- 8.2 Utilizing Digital Resources
- 8.3 Research Ethics

8.4 Understanding Intellectual Property

Unit 9: Entrepreneurship in Digital Age

9.1 Design Thinking and Business Solutions

9.2 Creating a Business Plan

9.3 Collecting Market Insights

9.4 Developing Effective Marketing and Sales Strategies

9.5 Financial Concepts for Business

9.6 Communication and Storytelling Skills

9.7 Collaboration and Iteration

9.8 Innovation and Creativity

COMPUTER SCIENCE AND ENTREPRENEURSHIP Part – I

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